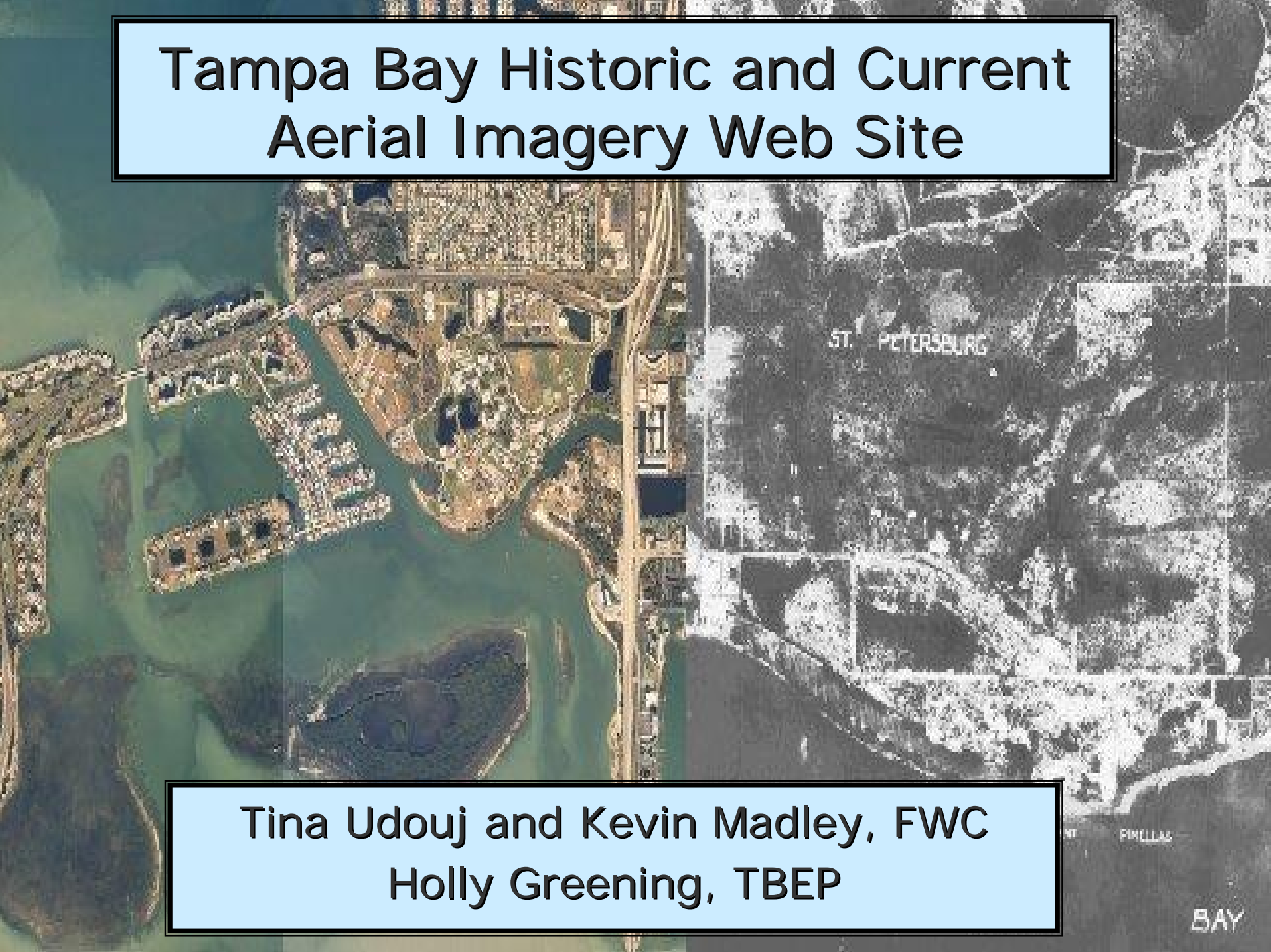


Tampa Bay Historic and Current Aerial Imagery Web Site


Tina Udouj and Kevin Madley, FWC
Holly Greening, TBEP





Water Quality and Habitat Declines

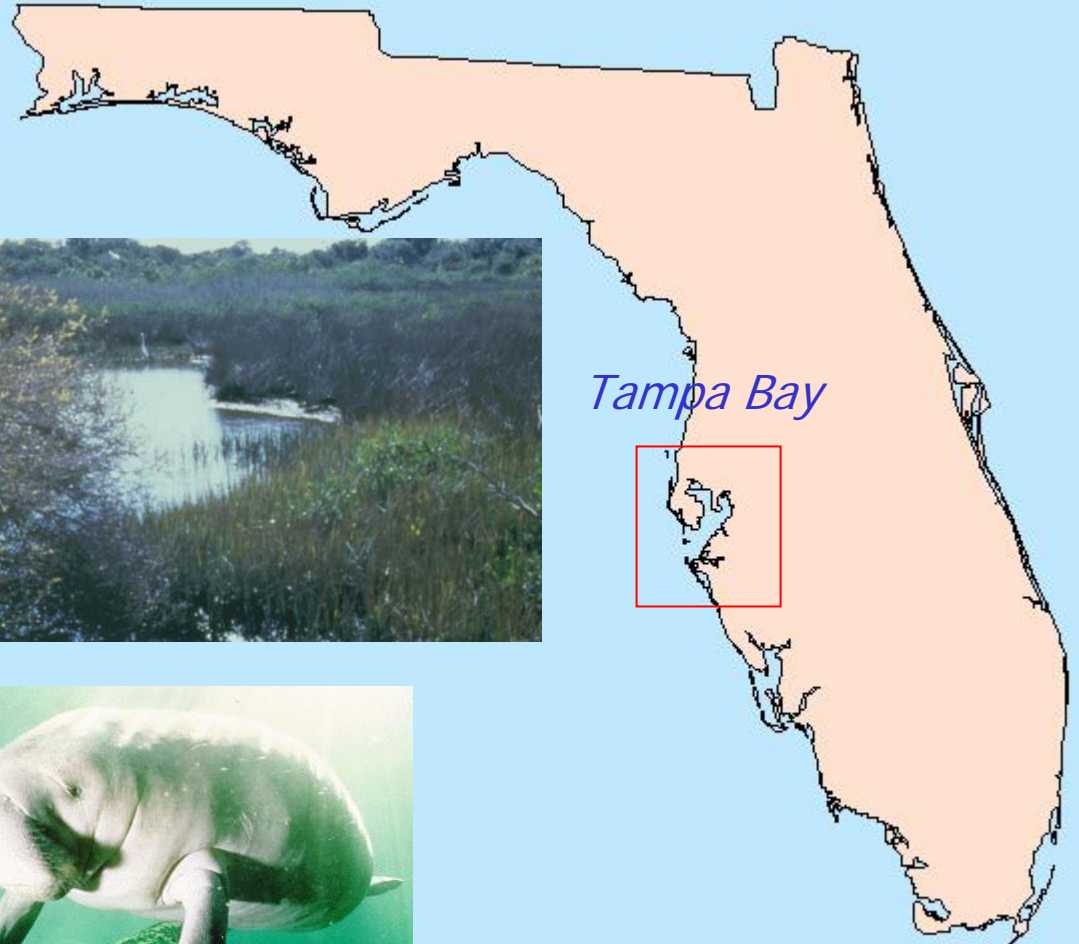


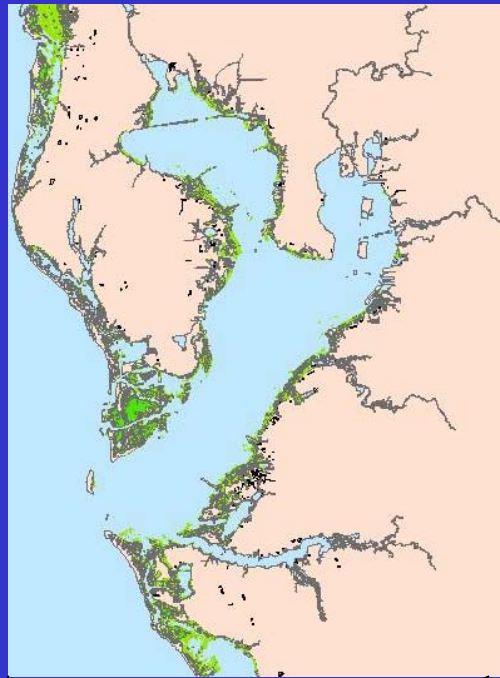
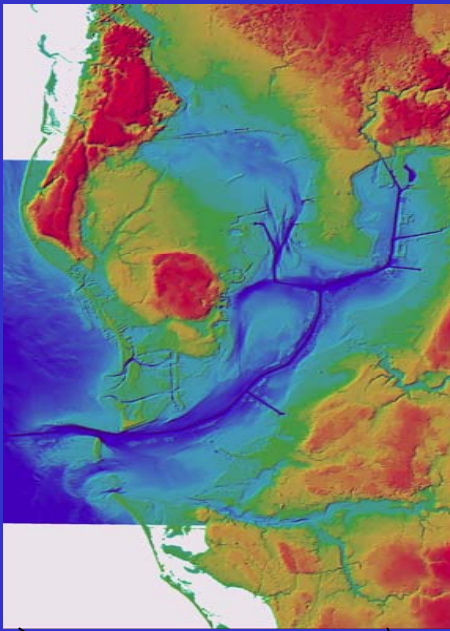
An underwater photograph showing a dense field of green seagrass in the foreground and middle ground. In the upper right corner, a silver fish with a yellow stripe is swimming. The water is clear and blue, with light rays visible. The text is overlaid on the upper left portion of the image.

Seagrass has been used as an indicator of environmental quality in many estuarine management efforts including Tampa Bay because of its sensitivity to changes in water clarity.

Introduction

- A top priority recently revealed among resource managers and researchers was improved access to digital images for historic and current seagrass extent.
- To accomplish this goal, an interagency team was formed to produce a Web site that will provide access to multiple years of aerial photography for the Tampa Bay region.





Web-based application to access and analyze digital files of aerial photography and maps of the Tampa Bay region.

Project Partners



--facilitate and provide project funds



--collect aerial imagery, generate maps of seagrass distributions every two years



--compile, scan and rectify imagery



--compress, mosaic, prepare data for serving via ArcIMS

Data Sources

Aerial Photography—SWFWMD, USGS

- 1926 – partial coverage, black and white
- 1947–1952
- 1999
- 2002

Seagrass Distributions—SWFWMD

- 1996
- 1999
- 2001

Ancillary Data—FMRI

- Watershed Basins
- Boundaries—counties, shorelines, roads, etc.
- NOAA Nautical chart

Viewing Requirement

- Sun's Java 1.3 Runtime Environment is required
- One time download
- Approximately 5.5 MB
- Users automatically prompted to download the recommended version, JRE 1.3.1_02

Software Requirements



ArcIMS enables users to display, query, and analyze Internet GIS data sources in an easy-to-use Web browser.

Configuration: IIS 5.0 Web Server and Tomcat 4.0 Servlet Engine



Maplicity™ is a lightweight Java™ applet designed to work with ArcIMS™ Image Services. It provides a feature rich familiar user interface for geospatial analysis and image visualization over the Internet

Hardware Requirements

- Lots of Storage – 1.5 Terabytes
- Very fast file access – multiple 10,000 RPM SCSI devices
- Mega RAM – 8 GB
- Dedicated for IMS applications

Methods

- GIS data layers were optimized by clipping, reducing unnecessary fields, and using a common projection
- Maximum and minimum scale ranges were employed to increase rendering speed.
- Individual images were mosaiced and compressed to reduce file sizes.



[Project Description](#)

[Imagery](#)

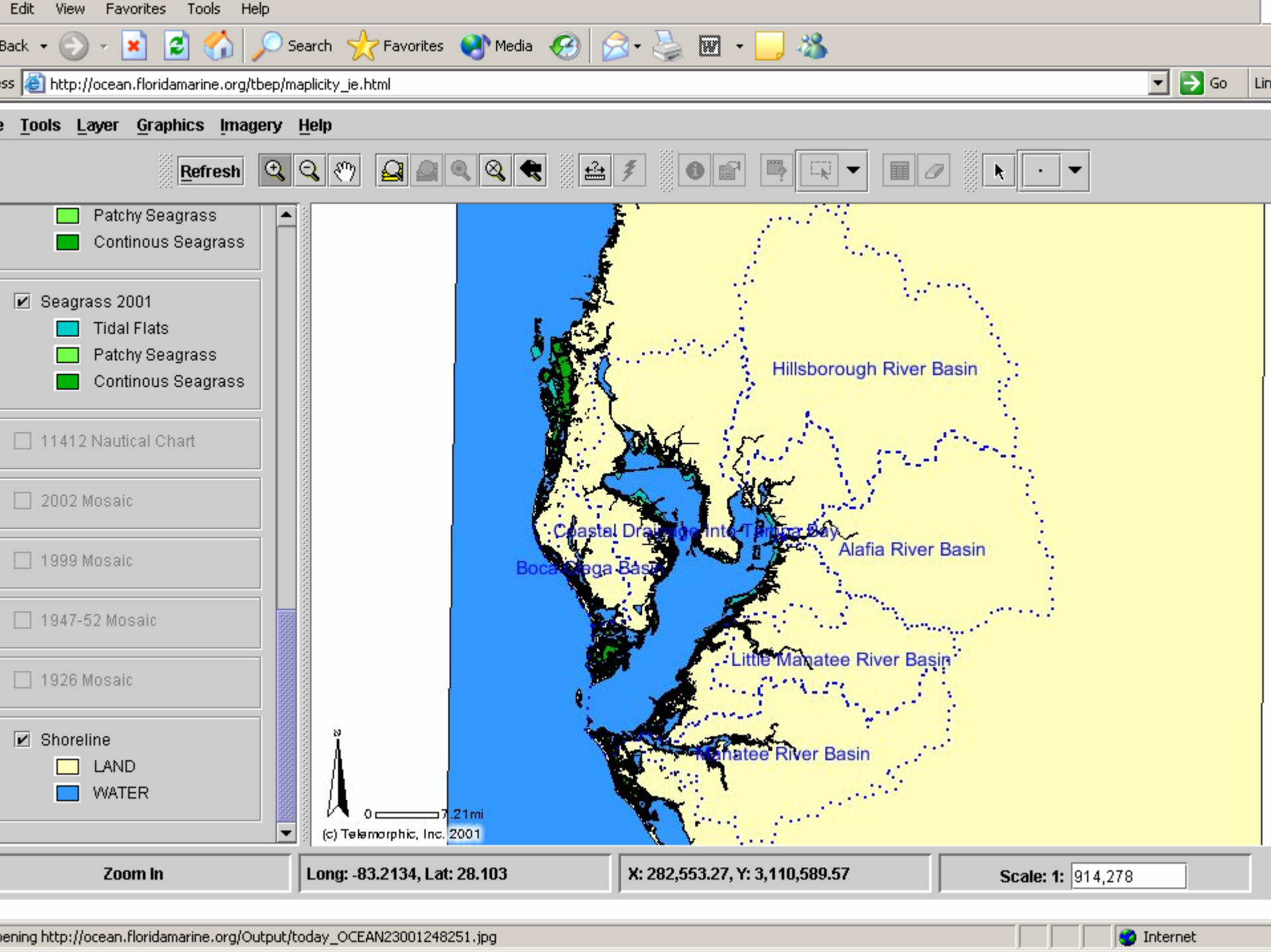
[Metadata](#)

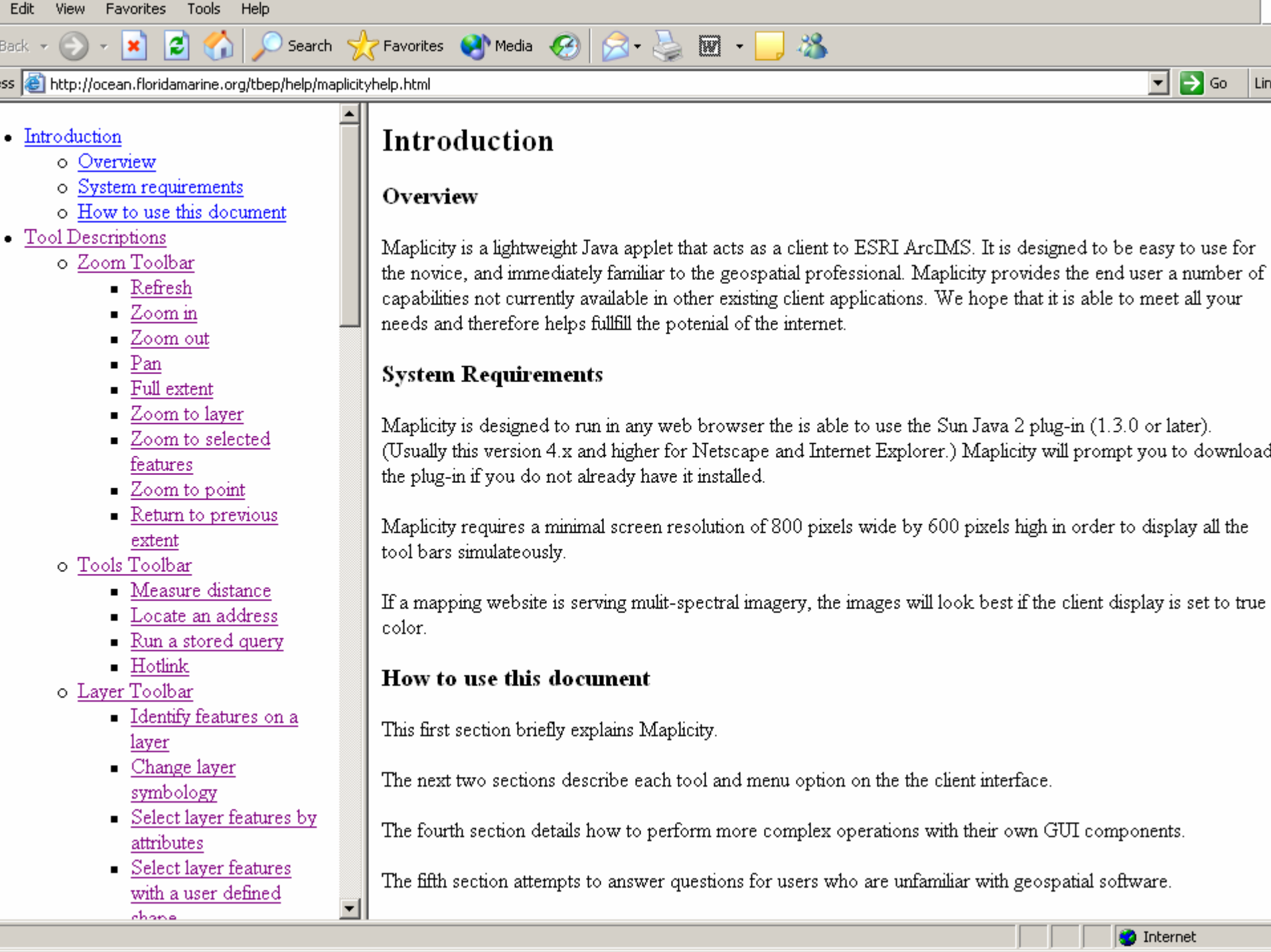
[How to Use This Site](#)

[Contact Us](#)

Links to Participating Agencies







- [Introduction](#)
 - [Overview](#)
 - [System requirements](#)
 - [How to use this document](#)
- [Tool Descriptions](#)
 - [Zoom Toolbar](#)
 - [Refresh](#)
 - [Zoom in](#)
 - [Zoom out](#)
 - [Pan](#)
 - [Full extent](#)
 - [Zoom to layer](#)
 - [Zoom to selected features](#)
 - [Zoom to point](#)
 - [Return to previous extent](#)
 - [Tools Toolbar](#)
 - [Measure distance](#)
 - [Locate an address](#)
 - [Run a stored query](#)
 - [Hotlink](#)
 - [Layer Toolbar](#)
 - [Identify features on a layer](#)
 - [Change layer symbology](#)
 - [Select layer features by attributes](#)
 - [Select layer features with a user defined](#)

Introduction

Overview

Maplicity is a lightweight Java applet that acts as a client to ESRI ArcIMS. It is designed to be easy to use for the novice, and immediately familiar to the geospatial professional. Maplicity provides the end user a number of capabilities not currently available in other existing client applications. We hope that it is able to meet all your needs and therefore helps fulfill the potential of the internet.

System Requirements

Maplicity is designed to run in any web browser the is able to use the Sun Java 2 plug-in (1.3.0 or later). (Usually this version 4.x and higher for Netscape and Internet Explorer.) Maplicity will prompt you to download the plug-in if you do not already have it installed.

Maplicity requires a minimal screen resolution of 800 pixels wide by 600 pixels high in order to display all the tool bars simultaneously.

If a mapping website is serving mult-spectral imagery, the images will look best if the client display is set to true color.

How to use this document

This first section briefly explains Maplicity.

The next two sections describe each tool and menu option on the the client interface.

The fourth section details how to perform more complex operations with their own GUI components.

The fifth section attempts to answer questions for users who are unfamiliar with geospatial software.

Functionality

- GIS queries, identify
- Editing- move data layers for legend display, alter symbology or label properties
- Zoom to point of interest
- Image visualization tools
- Download capabilities for vector and raster data

Refresh



☒ Seagrass 2001

- ☐ Tidal Flats
- ☐ Patchy Seagrass
- ☐ Continuous Seagrass

☐ 1999 Seagrass

- ☐ Tidal Flats
- ☐ Patchy Seagrass
- ☐ Continuous Seagrass

☐ Seagrass 1996

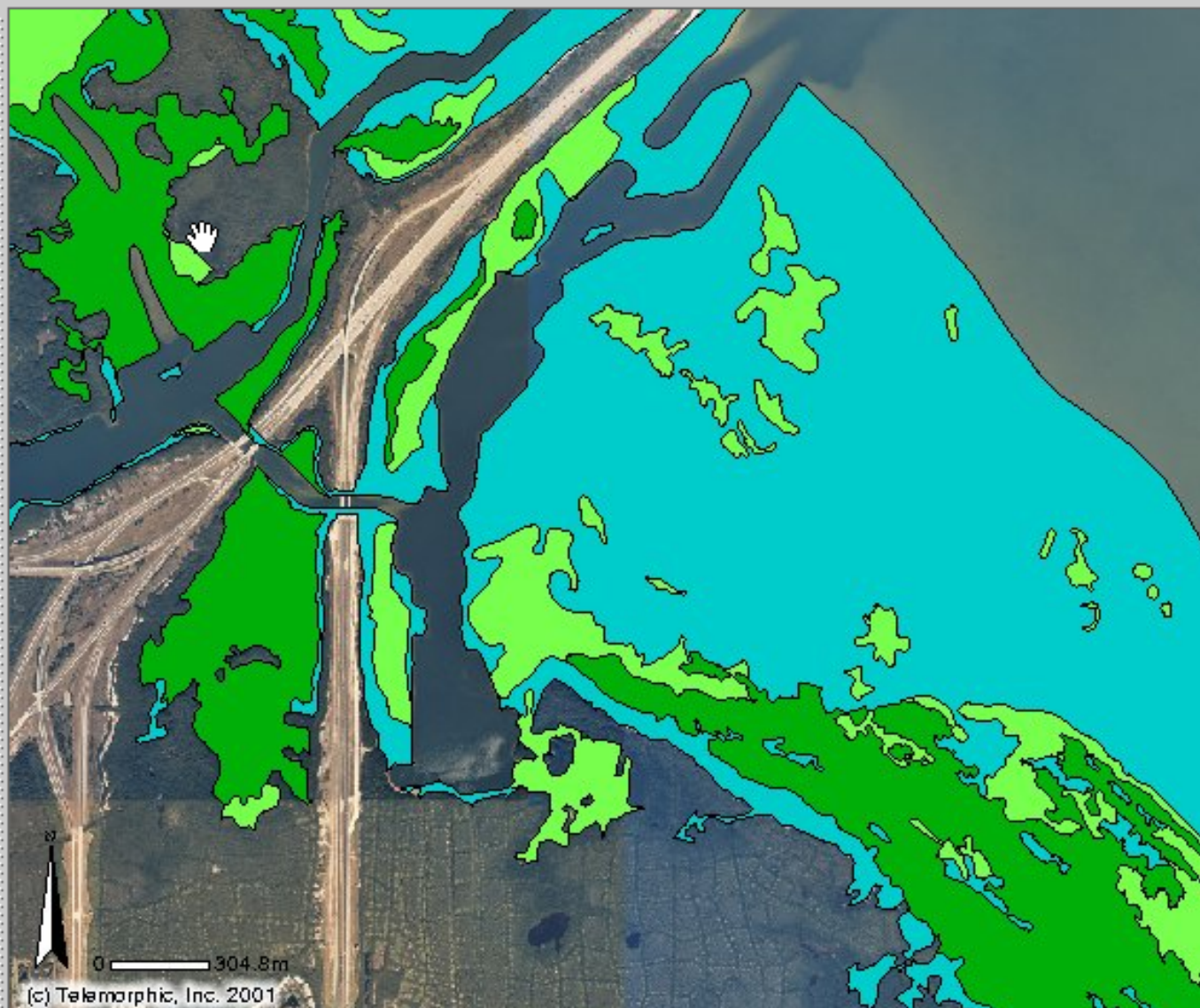
- ☐ Tidal Flats
- ☐ Patchy Seagrass
- ☐ Continuous Seagrass

☐ 11412 Nautical Chart

☒ 2002 Mosaic

☐ 1999 Mosaic

☐ 1947-52 Mosaic



Pan

Long: -82.6434, Lat: 27.9028

X: 338,255.87, Y: 3,087,524.49

Scale: 1: 24,000

Refresh



☒ Basins



☐ County Boundaries



☒ Study Areas



☐ USGS Quads



☐ Bathymetry



3



6



12



18



30



60



100



555



Inland Waters



(c) Teleornphic, Inc. 2001

Zoom In

Long: -82.6335, Lat: 27.9008

X: 339,227.16, Y: 3,087,282.79

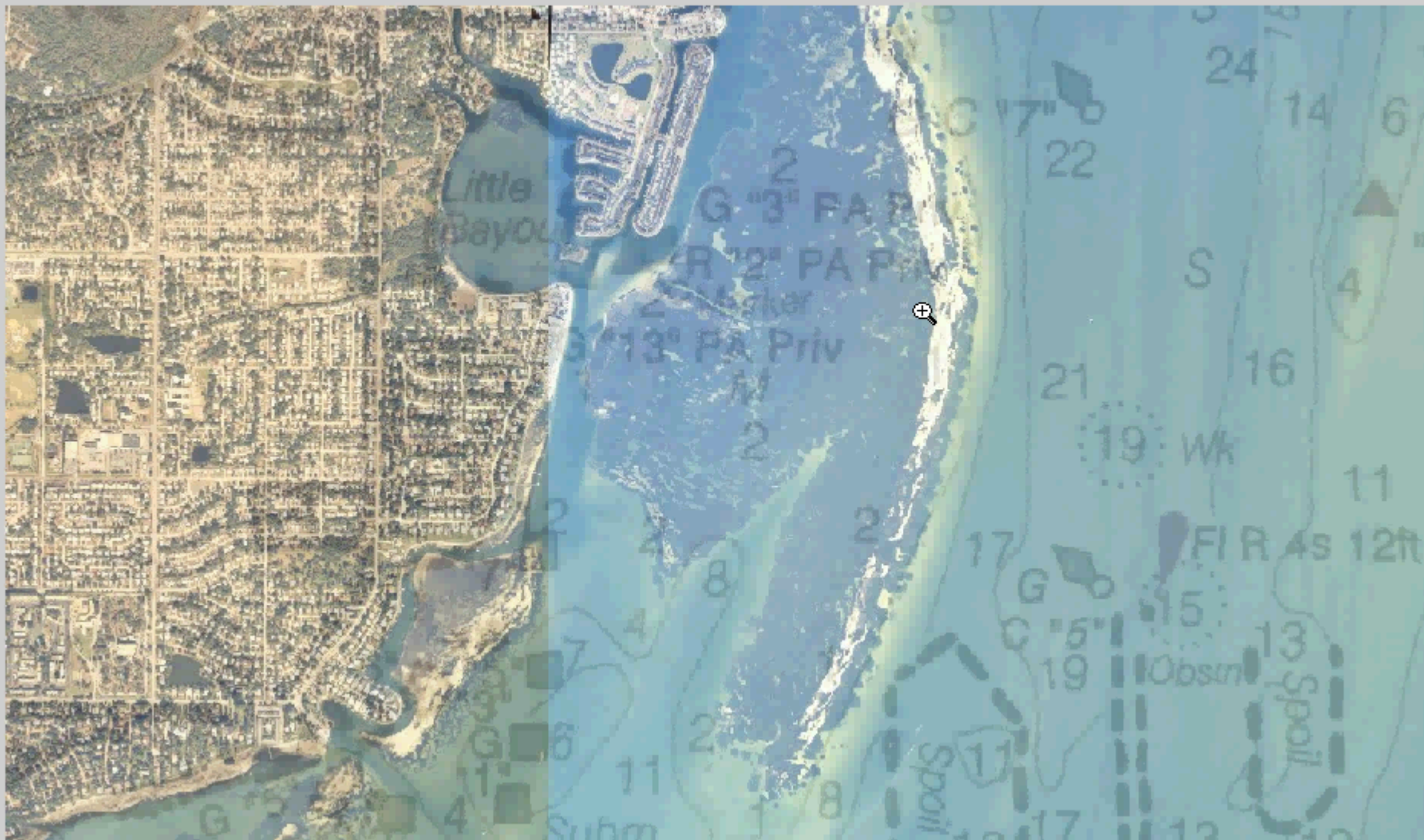
Scale: 1: 24,000

Zoom In

Long: -82.6335, Lat: 27.9008

X: 339,227.16, Y: 3,087,282.79

Scale: 1: 24,000



Future Improvements

- Acquire and add additional imagery (additional years and scales).
- Make corrections to images.
- Edit according to User requests.



Tampa Bay Estuary Imagery System

[Project Description](#)

[Imagery](#)

[Metadata](#)

[How to Use This Site](#)

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Links to Participating Agencies



Southwest Florida
Water Management District



USGS
science for a changing world

Internet Access

- <http://ocean.floridamarine.org/tbep>

- Also may enter through Web site links of the Tampa Bay Estuary Program

<http://tbep.org>

and the USGS Tampa Bay Study

<http://gulfsci.usgs.gov/tampabay/index.html>